

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
NATIONAL SCIENCE AND TECHNOLOGY	)	
NETWORK, INC.	)	
	)	
Application for Authorization of a Trunked	)	FCC File No. 0000693489
System in the 470-512 MHz Band	)	
	)	
Application to Modify License for Trunked	)	FCC File No. 0002920691
System in the 470-512 MHz Band	)	

**ORDER ON RECONSIDERATION**

**Adopted: October 18, 2007**

**Released: October 19, 2007**

By the Deputy Chief, Mobility Division, Wireless Telecommunications Bureau:

1. *Introduction.* In a January 31, 2007 *Order*,<sup>1</sup> we denied petitions filed by Mobile Relay Associates (MRA) and James A. Kay, Jr. to deny an application<sup>2</sup> of National Science and Technology Network, Inc. (NSTN) for authorization to operate a trunked system on multiple frequencies in the 470-512 MHz band. The application subsequently was granted under Call Sign WQGI981. We now have before us petitions for reconsideration of the *Order* filed by MRA<sup>3</sup> and James A. Kay, Jr., Comm Enterprises, LLC, and MS Airwaves, Inc. (collectively, Kay).<sup>4</sup> We also have before us comments submitted by Enterprise Wireless Alliance (EWA),<sup>5</sup> Radio Communications Association (RCA),<sup>6</sup> and the Land Mobile Communications Council (LMCC).<sup>7</sup> In addition, NSTN has filed an application to modify

<sup>1</sup> National Science and Technology Network, Inc., *Order*, 22 FCC Rcd 1953 (WTB MD 2007) (*Order*).

<sup>2</sup> FCC File No. 0000693489 (filed Dec. 12, 2001).

<sup>3</sup> Petition for Reconsideration (filed Mar. 2, 2007) (MRA Petition). NSTN filed an opposition. Opposition of National Science and Technology Network, (NSTN) to Petition for Reconsideration of Mobile Relay Associates (MRA) (filed Mar. 16, 2007) (Opposition to MRA). MRA filed a reply. Reply of Mobile Relay Associates (filed Mar. 27, 2007). NSTN moved to strike the reply. Motion to Strike Reply of Mobile Relay Associates (filed Apr. 2, 2007). MRA filed an opposition to the motion to strike the reply. Opposition to Motion to Strike Reply (filed Apr. 12, 2007) (Motion to Strike). We agree with MRA that NSTN's motion to strike MRA's reply merely sets forth NSTN's disagreement with the substance of the reply, and provides no basis for striking the pleading. *See id.* at 1. Consequently, we dismiss the motion to strike.

<sup>4</sup> Joint Petition for Reconsideration (filed Mar. 2, 2007) (Kay Petition). Kay filed a supplement. Supplement to Joint Petition for Reconsideration (filed Mar. 5, 2007). NSTN filed an opposition. Opposition of National Science and Technology Network, (NSTN) to Joint Petition for Reconsideration (filed Mar. 16, 2007) (Opposition to Kay). Kay filed a reply. Reply to Opposition (filed Mar. 30, 2007). Kay filed a further supplement to the petition. Motion for Leave to File Supplement and Further Supplement to the Joint Petition for Reconsideration (filed June 28, 2007).

<sup>5</sup> Letter dated Mar. 2, 2007 from Andre F. Cote, Senior Vice President, EWA, to Scot Stone, Deputy Chief, Mobility Division, Wireless Telecommunications Bureau (EWA Letter).

<sup>6</sup> Letter dated Mar. 15, 2007 from Russell H. Fox, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel to RCA, to Fred Campbell, Chief, Wireless Telecommunications Bureau (RCA Letter).

<sup>7</sup> Letter dated Apr. 4, 2007 from Ralph A. Haller, President, LMCC, to Scot Stone, Deputy Chief, Mobility Division, Wireless Telecommunications Bureau (LMCC Letter).

the license for Station WQGI981 to, *inter alia*, increase the maximum authorized power.<sup>8</sup> For the reasons discussed below, we grant the MRA petition and reverse the *Order*, and will rescind the grant of the initial application and dismiss both the initial application and the modification application.

2. *Background.* The *Order* granted an NSTN application requesting authority to operate a trunked radio system on 12.5 kHz “offset” channels in the 470-512 MHz band. NSTN proposed to operate with a 12.5 kHz channel bandwidth.

3. In 1997, the Commission directed the certified frequency coordinators for the private land mobile radio services to reach a consensus on the applicable coordination procedures for the 12.5 kHz “offset” channels in the 470-512 MHz frequency band.<sup>9</sup> That consensus is embodied in the LMCC procedures for evaluating adjacent channel interference in the 470-512 MHz band using the interference criteria of TIA/EIA/TSB-88 (TSB-88).<sup>10</sup> The LMCC Consensus provides that an application shall not be certified if an incumbent or the applicant has unacceptable interference of more than five percent reduction of the calculated service area reliability.<sup>11</sup> NSTN’s frequency coordinator stated that the NSTN application was coordinated using TSB-88, and that the applicant’s effective radiated power was adjusted so that the proposed station would not cause more than five percent signal degradation to adjacent-channel stations.<sup>12</sup> The *Order* concluded, however, that TSB-88 did not apply in the instant case because there was no spectral overlap between MRA’s stations and NSTN’s proposed facilities.<sup>13</sup>

4. In addition, the Commission adopted Section 90.187 of the Rules to permit centralized trunking in the 150-512 MHz frequency bands.<sup>14</sup> Centralized trunked systems must employ equipment that prevents transmission if a signal from another system is present on the frequency, unless the conditions in Section 90.187(b)(1) or (b)(2) are met. Section 90.187(b)(1) provides that monitoring is not required by applicants or licensees in the 470-512 MHz band that meet the loading requirements of Section 90.313 of the Rules<sup>15</sup> and have exclusive use of their frequencies in their service area.<sup>16</sup> Section 90.187(b)(2) provides that monitoring is not required on frequencies where an applicant or licensee does not have an exclusive service area if written consent is obtained from all “affected licensees.”<sup>17</sup> Licensees’ consent must be obtained if their service contours are overlapped by both the proposed trunked

<sup>8</sup> FCC File No. 0002920691 (filed Feb. 21, 2007). MRA filed an informal objection to the modification application. Informal Objection (filed Mar. 22, 2007); Supplement to Informal Objection (filed June 28, 2007).

<sup>9</sup> See Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Services, *Second Report and Order*, PR Docket No. 92-235, 12 FCC Rcd 14307, 14330-31 ¶ 43 (1997) (*Refarming Second Report and Order*).

<sup>10</sup> See Filing Freeze to be Lifted for Applications under Part 90 for 12.5 kHz Offset Channels in the 421-430 and 470-512 MHz Bands, *Public Notice*, 13 FCC Rcd 5942, 5942 (WTB 1997) (citing Letter from Larry A. Miller, President, LMCC, to Daniel B. Phythyon, Esq., Acting Chief, Wireless Telecommunications Bureau (Sept. 10, 1997) (LMCC Consensus)).

<sup>11</sup> See LMCC Consensus, Attachment at 2.

<sup>12</sup> See Letter dated Feb. 25, 2002 from Gary Ruark, Frequency Coordinator, American Automobile Association, to Federal Communications Commission, Wireless Telecommunications Bureau.

<sup>13</sup> See *Order*, 22 FCC Rcd at 1954 n.10 (citing City of El Segundo, *Order on Reconsideration*, 20 FCC Rcd 18857, 18859 ¶ 5 (WTB PSCID 2005) (*El Segundo*)).

<sup>14</sup> See 47 C.F.R. § 90.187.

<sup>15</sup> 47 C.F.R. § 90.313.

<sup>16</sup> See 47 C.F.R. § 90.187(b)(1).

<sup>17</sup> See 47 C.F.R. § 90.187(b)(2).

station's interference contour and a circle with a radius of seventy miles from the proposed base station,<sup>18</sup> and, as relates to the matter at hand, the licensees "have assigned frequencies (base and mobile) that are 7.5 kHz or less removed from proposed stations that will operate with a 12.5 kHz bandwidth."<sup>19</sup> The *Order* concluded that NSTN did not need to obtain the written consent of MRA and Kay, because the proposed center frequencies for NSTN's 12.5 kHz channels were more than 7.5 kHz (specifically, 12.5 kHz) removed from MRA's and Kay's center frequencies.<sup>20</sup>

5. *Discussion.* On reconsideration, MRA argues that the *Order*'s conclusion that TSB-88 did not apply because there was no spectral overlap was incorrect.<sup>21</sup> Kay argues that the *Order* misapplied Section 90.187(b)(2).<sup>22</sup> Finally, RCA argues that Section 90.187(b)(2) does not apply to the 470-512 MHz band.<sup>23</sup> As set forth below, we agree with MRA that TSB-88 applies to NSTN's application. Accordingly, we reverse the *Order* on that basis. With respect to the other issues, however, we conclude that the *Order* was correct.

6. While TSB-88 does not apply when there is no spectral overlap,<sup>24</sup> we now conclude that there is spectral overlap in the present instance: MRA and Kay operate on 25 kHz channels (with an occupied bandwidth of 20 kHz), so NSTN's proposed operations on 12.5 kHz channels (with an occupied bandwidth of 11.25 kHz) on center frequencies 12.5 kHz removed from MRA's and Kay's center frequencies results in overlap.<sup>25</sup> Therefore, NSTN application was required to satisfy the criteria of TSB-88. MRA has submitted TSB-88 analyses conducted by EWA indicating interference exceeding the acceptable five percent reduction of the calculated service area reliability for each frequency requested in the NSTN application, and our engineering staff's independent studies confirm those results. Consequently, we conclude that the coordination of the NSTN application was defective because the proposed operations would not afford the required interference protection to the adjacent-channel stations of MRA and Kay. We therefore will rescind the grant and dismiss the application. In addition, we will dismiss as moot NSTN's pending application to modify the license.

7. While the foregoing discussion resolves the matter before us, we will address the parties' other contentions, in order to clarify certain issues. Kay argues that the *Order* misapplied Section 90.187(b)(2) when it concluded that MRA and Kay were not affected licensees. Specifically, Kay asserts that Section 90.187(b)(2) requires consideration of not only the separation between the incumbent and proposed center frequencies, but also the occupied bandwidth.<sup>26</sup> We agree with NSTN that the *Order* was correct, because the separation between NSTN's proposed center frequencies and those of MRA and Kay was greater than 7.5 kHz.<sup>27</sup> The Commission specifically addressed this issue in 1999:

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<sup>18</sup> 47 C.F.R. § 90.187(b)(2)(ii), (iii).

<sup>19</sup> 47 C.F.R. § 90.187(b)(2)(i).

<sup>20</sup> See *Order*, 22 FCC Rcd at 1954 ¶ 3.

<sup>21</sup> See MRA Petition at 2-3; accord EWA Letter at 2; LMCC Letter at 2.

<sup>22</sup> See Kay Petition at 4-5.

<sup>23</sup> See RCA Letter at 2-3.

<sup>24</sup> See, e.g., National Science and Technology Network, Inc., *Order*, 22 FCC Rcd 11538, 11539 n.9 (WTB MD 2007) (citing City of Los Angeles, Department of Airports, *Order*, 22 FCC Rcd 1808, 1810 ¶ 10 (PSHSB PD 2007) (*Los Angeles Airports*), recon. pending), recon. pending.

<sup>25</sup> See *id.* at 11539 ¶ 3. The *Order*'s contrary conclusion apparently was the result of a mathematical error.

<sup>26</sup> See Kay Petition at 4.

<sup>27</sup> See Opposition to MRA at 1-2; Opposition to Kay at 1; Motion to Strike at 3.

[A]pplicants of proposed trunked systems must obtain concurrence from . . . only those adjacent channel stations that have assigned frequencies within the stated boundaries. For example, if a licensee proposes to operate a trunked radio system that is designed to operate on 12.5 kHz channels . . . on one of the former 12.5 kHz offset channels, the Rules require the applicant to obtain concurrence from . . . all adjacent stations that have *assigned frequencies* within 7.5 kHz of the trunked system's *assigned frequency*.<sup>28</sup>

We therefore conclude that the *Order* interpreted Section 90.187(b)(2) correctly.

8. Finally, RCA argues that Section 90.187(b)(2) does not apply to stations in the 470-512 MHz band, and that Section 90.187(b)(1) is the sole test for whether a trunked station in the 470-512 MHz band must monitor the frequency before transmitting.<sup>29</sup> We disagree. Contrary to RCA's contention, the fact that Section 90.187(b)(1) applies only to applicants in the 470-512 MHz band does not suggest or imply that Section 90.187(b)(2) does not also apply to that band.<sup>30</sup> If Section 90.187(b)(2) did not apply to applicants in the 470-512 MHz band, there would be no reason for the rule to define a service contour for such stations, in order to determine the affected licensees from which consent is required.<sup>31</sup> Rather, Sections 90.187(b)(1) and (b)(2) provide alternative bases for permitting new centralized trunked 470-512 MHz operations; applicants that do not meet one criterion must satisfy the other. Section 90.187(b)(2) has properly been applied to 470-512 MHz applications in the past,<sup>32</sup> and was properly applied in the instant matter.

9. Accordingly, IT IS ORDERED, pursuant to Sections 4(i), 303(i), and 405 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(i), 405, and Section 1.106 of the

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<sup>28</sup> Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, *Third Memorandum Opinion and Order*, PR Docket No. 92-235, 14 FCC Rcd 8642, 8661 ¶ 38 (1999) (emphasis added) (footnote omitted); *see also, e.g.*, RF Data, Inc., *Order on Reconsideration*, 17 FCC Rcd 10410, 10411-12 ¶ 5 (WTB PSPWD 2002) (determining the applicability of Section 90.187(b)(2) by comparing the incumbent and proposed center frequencies, and expressly rejecting "the argument that the Commission's Rules require applicants proposing to operate trunking systems on the 12.5 kHz 'offset' channels with a 12.5 kHz channel bandwidth to obtain the consent of any 25 kHz incumbent system operating on the adjacent 'main' channel"); *id.* at 10412 n.21 ("While it is true that when the Commission adopted policies and procedures concerning Section 90.187 that it urged coordinators to avoid coordinations that would place interfering signals within the passband of 25 kHz receivers, it did not prohibit such coordinations.") (citing Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Services, *Fifth Memorandum Opinion and Order*, PR Docket No. 92-235, 16 FCC Rcd 416, 422-23 ¶¶ 15-17 (2000)).

<sup>29</sup> *See* RCA Letter at 2.

<sup>30</sup> *See* Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, *Third Memorandum Opinion and Order*, PR Docket No. 92-235, 14 FCC Rcd 10922, 10923 ¶ 2 (1999); *Refarming Second Report and Order*, 12 FCC Rcd at 14338 ¶ 58 (both indicating that the criteria in Section 90.187(b)(2) apply to proposed "centralized trunked systems in the 150-174 MHz, 421-430 MHz, 450-470 MHz, and 470-512 MHz bands").

<sup>31</sup> *See* 47 C.F.R. § 90.187(b)(2)(ii) (defining service area for 421-512 MHz stations as 39 dBu contour).

<sup>32</sup> *See, e.g.*, Mobile Relay Associates, *Order*, 21 FCC Rcd 3551, 3552 ¶ 3 (WTB PSCID 2006); *see also* LMCC Letter at 2. RCA cites several decisions for the proposition that Section 90.187(b)(2) does not apply in the 470-512 MHz band. We have reviewed those decisions, and conclude that Section 90.187(b)(2) was not discussed therein either because the assigned frequencies were not within the stated boundaries, *see Los Angeles Airports*, 22 FCC Rcd 1808; *El Segundo*, 20 FCC Rcd 18857, or because the application did not meet the TSB-88 criteria, which mooted the Section 90.187(b)(2) analysis, *see Samuel Moses, Order on Further Reconsideration*, 21 FCC Rcd 11257 (WTB 2006), *recon. pending*; University of Southern California, *Order*, 19 FCC Rcd 23155 (WTB PSCID 2004).

Commission's Rules, 47 C.F.R. § 1.106, that the Petition for Reconsideration filed on March 2, 2007 by Mobile Relay Associates, IS GRANTED, and application FCC File No. 0000693489, filed by National Science and Technology Network, Inc. on December 12, 2001 and subsequently amended, SHALL BE RETURNED TO PENDING STATUS and DISMISSED consistent with this *Order on Reconsideration* and the Commission's Rules.

10. IT IS FURTHER ORDERED that the Motion to Strike Reply of Mobile Relay Associates filed by National Science and Technology Network, Inc. on April 2, 2007 IS DISMISSED.

11. IT IS FURTHER ORDERED that the Joint Petition for Reconsideration filed on March 2, 2007 by James A. Kay, Jr., Comm Enterprises, LLC, and MS Airwaves, Inc. IS DENIED.

12. IT IS FURTHER ORDERED that application FCC File No. 0002920691, filed by National Science and Technology Network, Inc. on February 21, 2007, SHALL BE DISMISSED AS MOOT.

13. IT IS FURTHER ORDERED that the informal objection to application FCC File No. 0002920691 filed by Mobile Relay Associates on March 22, 2007 IS DISMISSED AS MOOT.

14. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Scot Stone  
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Wireless Telecommunications Bureau